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EXAMINER	
PIZARRO, RICARDO M	
ART UNIT	**PAPER NUMBER**
2661	15

DATE MAILED: 03/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/138,578	KAMEDA ET AL.	
	Examiner	Art Unit	
	Pankaj Kumar	2631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 10
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. As per the Szczebak reference, applicant argues that it is not inherent to adjust timing when data is adjusted from a synchronous system to an asynchronous system. This is not persuasive since what is claimed is adjusting timing of the input data – where the input data is from the synchronous and the input data is transmitted in the asynchronous system ("claim 1: ... adjusting the timing of input of the data output from said synchronous system and the data transmitted in the asynchronous system ... "). Applicants do not claim to adjust timing when data is adjusted. Applicant's arguments relate to adjusting time, which is different than applicant's claims and office's examination based on adjusting timing of the input data.

2. Also claim 1 still does not make sense at least with the following: " ... adjusting the timing of input of one of the data output from said synchronous system and the data transmitted in the asynchronous system from said preceding stage to said data holding unit ... ". Is the applicant saying that only one data is output from the synchronous system and then their system stops working? This is most likely not the case and so this claim is still indefinite at least for this reason. If the input data is from the synchronous system and the input data is transmitted in the asynchronous system, then what is going from the preceding stage to the data holding unit? If the input data is either the data output from said synchronous system or the data transmitted in the asynchronous system, then what is receiving the input data?

3. Also, "the data received and held" lacks antecedent basis since only "data transmitted" and "data output" and "data holding unit receiving and holding" have been stated.

4. Also "data output from said synchronous system" is indefinite since it is not clear whether this is referring to the earlier statement in the claim where it says "data output from an external synchronous system". Maybe it should say 'the data output from said synchronous system'

5. Also, page 10 of arguments in the 6th line discusses "synchronous to asynchronous" but then during the same discussion in lines 11-12 discusses "asynchronous to synchronous". Thus, what the applicant is arguing is not clear.

6. Also, page 10 starting at line 13 of arguments discusses "time periods when there is no communication". This means there would be no data. The claim has the limitation of data. Thus, applicant's argument is not in line with what is claimed.

Response to Amendment

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 1 (and thus 2 to 9) are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10

USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 1 recites the broad recitation "data transmitted from a preceding stage or data output from an external synchronous system", and the claim also recites "data output from said synchronous system and the data transmitted in the asynchronous system from said preceding stage" which is the narrower statement of the range/limitation. It is a narrower limitation since the broad limitation includes the word 'or' while the narrower limitation does not. Also, in the broad limitation, the preceding stage can be asynchronous or synchronous while in the narrow limitation, the preceding stage can only be asynchronous.

10. Claim 1 still is grammatically incorrect. For example, the following phrase has grammatical problems "A data transmission line used continuously connected in a plurality of stages ... ". Maybe it should have commas and hence say 'A data transmission line, used continuously, connected in a plurality of stages ...'

11. Claim 1 has "the data" and "said data" but it lacks antecedent basis since it is indefinite whether the data is referring to "data transmitted from a preceding stage" or "data output from an external synchronous system".

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

13. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Muramatsu JP06083731.

14. As per claim 1, Muramatsu teaches a data transmission line used connected continuously in a plurality of stages in an asynchronous system, comprising: a data holding unit receiving and holding data transmitted from a preceding stage or data output from an external synchronous system, and outputting and transmitting the data to a succeeding stage (Muramatsu fig. 3: 20b); a transfer control unit for controlling input and output of said data at said data holding unit (Muramatsu fig. 3: 20a); and an adjustment unit for adjusting timing of input of the data output from said synchronous system and the data transmitted in the asynchronous system from said preceding stage to said data holding unit, when a mode in which data output from said synchronous system is taken and transmitted to said data transmission line (Muramatsu constitution: "The circuit 1 includes further transfer request control part 1a, which sets up the circuit 1 to a permission mode or a suppressing mode for conventional self-synchronous transfer control operation based upon a mode signal applied from the external to its mode input terminal SYSN. In the suppressing mode, a transfer request signal applied to a pulse input terminal CI of

the circuit 1 is controlled so as to be transmitted to the succeeding transfer control circuit in accordance with a clock applied from the external to the terminal CK of the control part 1a. ").

15. Claims 1, 2, 3, and 7 rejected under 35 U.S.C. 102(e) as being anticipated by Szczebak Jr. et al. 5,640,433.

16. As per claim 1, Szczebak teaches a data transmission line used connected continuously in a plurality of stages in an asynchronous system, comprising: a data holding unit receiving and holding data transmitted from a preceding stage or data output from an external synchronous system (Szczebak figs. 14, 15), and outputting and transmitting the data to a succeeding stage (Szczebak figs. 14, 15); a transfer control unit for controlling input and output of said data at said data holding unit (Szczebak figs. 14, 15); and an adjustment unit for adjusting timing of input of the data output from said synchronous system (Szczebak adjusts timing of data output from synchronous system; fig. 15c: 872 has data and clock and 916 and 930 shift data which adjusts the timing of the data; fig. 14: 116 converts data from synchronous to asynchronous and thus inherently adjusts timing) and the data transmitted in the asynchronous system (Szczebak adjusts timing of data transmitted in the asynchronous system; fig. 15; fig. 14: 116 converts data from asynchronous to synchronous and thus inherently adjusts timing) from said preceding stage to said data holding unit (Szczebak has data transmitted in the asynchronous system from the preceding stage to the data holding unit; fig. 15d: 910 writes data to async transmit register from the preceding DDS receive buffer stage), when a mode in which data output from said synchronous system is taken and transmitted to said data transmission line (Szczebak figs. 14, 15: synchronous data is being output).

17. As per claim 2, Szczebak teaches the data transmission line according to claim 1, further comprising buffer means controlled by said synchronous system, said buffer means provided between said synchronous system and said data holding unit, receiving and temporarily holding output data of said synchronous system and outputting the data to said data holding unit (Szczebak figs. 14, 15).

18. As per claim 3, Szczebak teaches the data transmission line according to claim 2, wherein said mode designation is canceled in response to completion of data input to said data holding unit (Szczebak figs. 14, 15: interrupts, flags, pointers, setting and clearing clocks, decisions, etc. based on data, buffers, etc.).

19. As per claim 7, Szczebak teaches the data transmission line according to claim 1, wherein said mode designation is canceled in response to completion of input to said data holding unit (Szczebak figs. 14, 15: interrupts, flags, pointers, setting and clearing clocks, decisions, etc. based on data, buffers, etc.).

Allowable Subject Matter

20. Claims 4, 5, 6, 8, and 9 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pankaj Kumar whose telephone number is (703) 305-0194. The examiner can normally be reached on Mon, Tues, Wed and Thurs after 8AM to after 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (703) 306-3034. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PK

TEMESGHEN GHEBRETINSAE
PRIMARY EXAMINER